



Summary

Main Features

ABOUT THIS PUBLICATION

This publication presents the results of a study of the effects of government benefits and taxes on the distribution of income among private households in Australia in 1998-99. Similar studies were conducted for 1984, 1988-89 and 1993-94.

CHANGES IN THIS ISSUE

There are three significant changes between the 1998-99 study of the effects of government benefits and taxes and the 1993-94 study.

Firstly, the amount of indirect benefits allocated in this study is not comparable with the amount allocated in previous studies because of the impact of the implementation of accrual accounting in government finance statistics from 1998-99. Previously, government finance statistics had been recorded on a predominantly cash basis. Secondly, improved methods have been used to calculate indirect taxes on both the ownership of dwellings and banking services. For more details see the Explanatory notes.

Thirdly, the definition of dependent children aged 15 years and over has changed. It now includes full-time students aged 15-24 years who have a parent in the household (but no partner or child of their own). In previous issues it included full-time students aged 15-20 years who had a parent or other relative in the household (but no partner or child of their own).

The publication relating to the 1993-94 study included a number of tables which have not been continued in this edition. These included additional details for multiple income unit households; information on couples with dependent children only by number of children and income quintile; and age of reference person analysis for households with dependent children only. These tables are available on request, for a fee.

EFFECTS OF ROUNDING

Where figures have been rounded, discrepancies may occur between sums of the component items and totals.

ABBREVIATIONS

ABS	Australian Bureau of Statistics
ANZSIC	Australian and New Zealand Standard Industrial Classification
ASNA	Australian System of National Accounts
GFS	Government Finance Statistics
HEC	Household Expenditure Classification
HECS	Higher education contribution scheme
HES	Household Expenditure Survey
n.e.c.	not elsewhere classified
RSE	Relative standard error
SE	Standard error

SUMMARY OF FINDINGS

INTRODUCTION

This publication presents the results of a study of the effects of government benefits and taxes on the distribution of income among private households in Australia in 1998-99.

Benefits and taxes included in the study were restricted to those that are relatable to particular types of households and household expenditure. Household income is increased directly by benefits in the form of regular cash payments, such as the age pension and family payments, and indirectly by government expenditures such as those on health and education. On the other hand, household income is reduced by personal income taxes (direct taxes) and by indirect taxes passed on in the prices households pay for goods and services.

The study excludes government taxes and expenditure that do not relate directly to particular types of households or household expenditure, such as government revenue from corporate taxes and spending on defence, public order and safety, transport and communications.

The most restricted concept of income used in the study is referred to as private income, while the most extensive is final income. Adding direct government benefits to private income gives gross income, which is the most widely used income concept in ABS household surveys. Disposable income is derived by subtracting direct taxes from gross income. Final income is equal to disposable income plus indirect government benefits less indirect taxes.

The methodology used in this study is similar to that used in other studies in Australia and overseas. However, there are other approaches that could have been taken which might have produced different results. Details of the study methodology are given in the Explanatory notes. Please note that the results are dependent on the assumptions that are inherent in the methodology.

GOVERNMENT BENEFITS AND TAXES ALLOCATED

Of the total Commonwealth, State and local government taxation revenue in 1998-99, the study allocates taxes of \$95,127 million out of \$180,698 million or 53% of total government revenue. Of total government expenditure of \$216,208 million, the study allocates benefits of \$108,571 million or 50% of total government expenditure. The unallocated amounts mainly reflect taxation and government expenditure that are not conceptually relatable to individual households, but they also reflect the lack of suitable indicators on which to allocate some taxation revenue, such as capital gains tax, and some benefits. In comparison, the 1993-94 study allocated 54% of government revenue and 48% of government expenditure.

More benefits than taxes were allocated in the current study so that, on average, benefits exceed taxes. This outcome is not significant in itself as there is not a direct correspondence between the level of government benefits provided to any sector and the means used to finance those benefits.

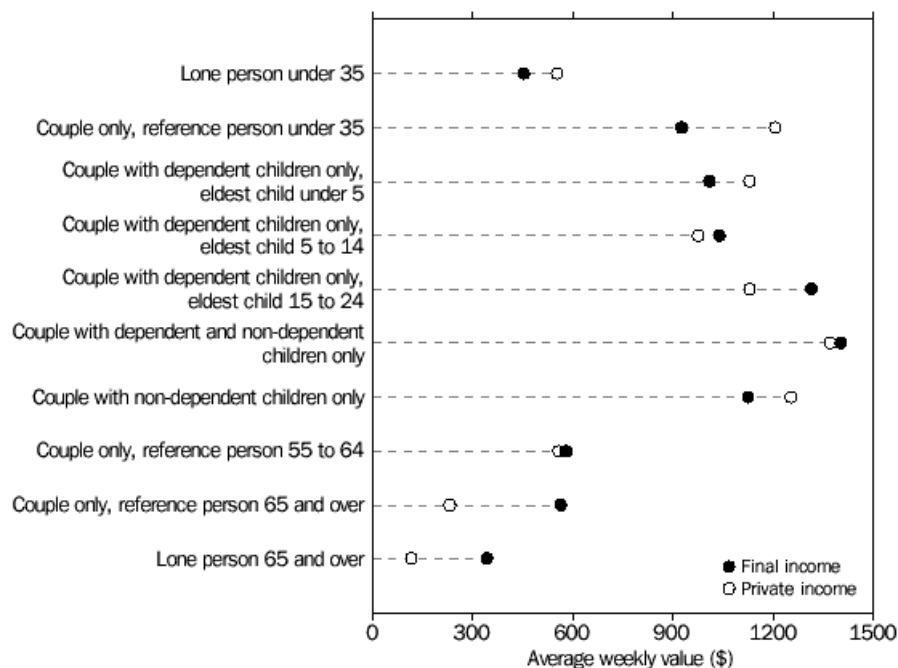
The system of government benefits and taxes in Australia has been designed to assist those in the community who are most in need of financial support. The results of this study give an indication of the extent of the redistributive impact between different groups in the population. The following sections summarise the impact on population groups defined in terms of life cycle stages and in terms of high and low income groups.

LIFE CYCLE STAGES

The life cycle stages used in this study consist of ten stages of formation, maturation and dissolution of the traditional nuclear family and provide a simplified view of life cycle possibilities. Some household types such as lone parents and lone persons aged 35-65 years are excluded from this sequential analysis. The stages cover approximately 65% of households.

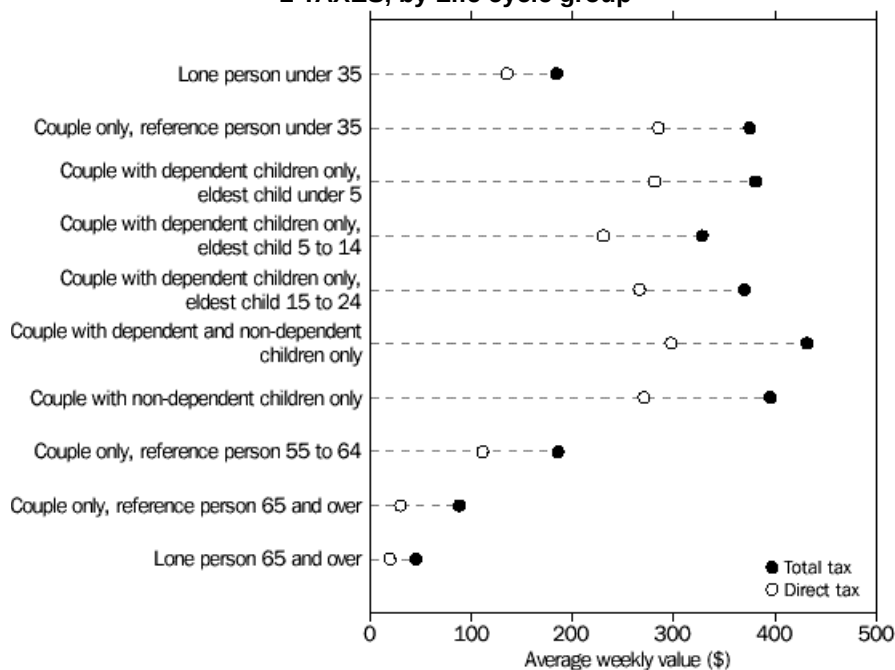
Levels of household income are related to life cycle stages (figure 1). Private income (all regular cash payments received excluding direct government benefits) generally rises through the early stages of family formation with the increasing number of earners in the household and their increasing work experience. It peaks while non-dependent children are living in the household and contributing to household income. In subsequent stages of the life cycle, as household size is reduced, income declines. Levels of final income (private income plus government benefits less taxes) follow a similar pattern, although they tend to be lower than private income during the early life cycle stages and higher in the later stages.

1 PRIVATE AND FINAL HOUSEHOLD INCOME, by Life cycle group

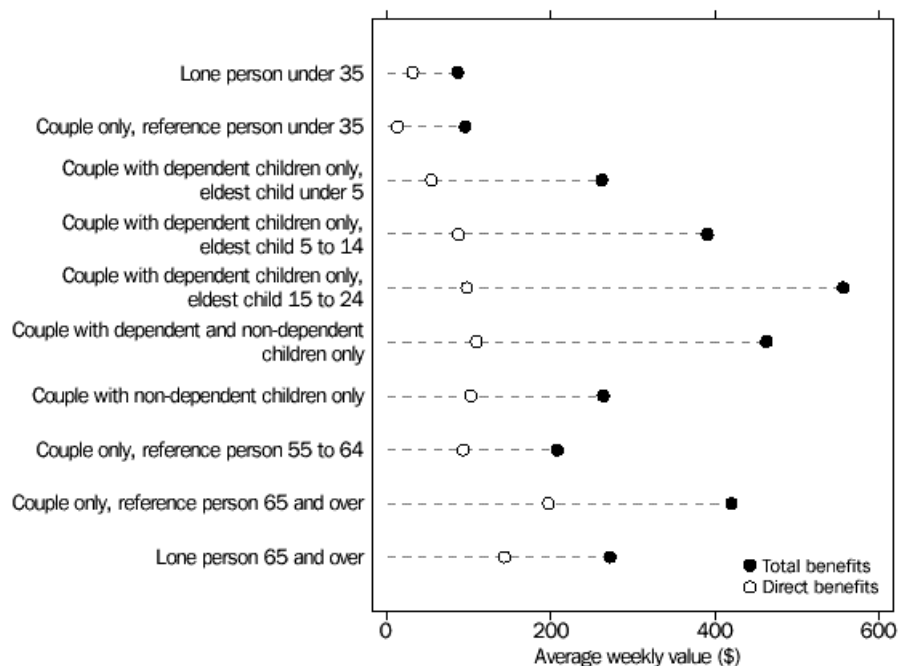


In the first two stages, which consist of young lone person and young couple only households, direct benefits tend to be low. This relates to their youth, the absence of children (and therefore family payments) and the high employment levels in such households. Indirect benefits also tend to be low in these early life cycle stages because the household size is small, the members do not usually receive school benefits and, due to their age, are less likely to use health services. Direct taxes, which are proportional to income, are lower for lone persons than for couple only households where, on average, more than one person is earning income and paying taxes. Similarly, indirect taxes are low for lone person households because household expenditure is relatively low.

2 TAXES, by Life cycle group



3 GOVERNMENT BENEFITS, by Life cycle group



Couples with dependent children generally receive higher levels of direct and indirect benefits than young couple only and young lone person households. Direct benefits are higher because the households tend to be eligible for family allowance and other benefits such as Austudy. Indirect benefits are also higher. The household receives greater health benefits due to the increase in household size and receives greater education benefits as the children go to school and progress to higher education. Direct taxes are higher than for young lone person households, with household income increasing as more household members participate in the labour force. Indirect taxes also increase as households spend more from the higher income.

Households containing a couple with non-dependent children only receive a similar level of direct benefits to households with dependent children. However, for these households age and disability support pensions become the most significant sources of direct benefits. Indirect benefits are lower because fewer household members use education services. Levels of income and expenditure are both high, resulting in high direct and indirect taxes. Once the children leave, the households are smaller and contain fewer members who are employed. The incomes and expenditures of these households tend to be lower so they pay less in direct and indirect tax.

In the last two stages, households receive the highest levels of direct benefits, consisting mainly of the age and Veterans Affairs pensions. Indirect benefits are higher than in other households without dependent children due to greater use of health services. Direct taxes paid are very low because income is low and indirect taxes are low because spending is low.

OTHER HOUSEHOLD GROUPS

About 35% of Australian households are not covered by the life cycle groups shown in graphs 1 to 3, up from the 29% not covered in the life cycle analysis a decade ago in the 1988-89 study. The household groups which are excluded from the life cycle analysis are: lone parents (6%); lone persons aged 35 to 64 (11%); couple only, reference person aged 35 to 54 (6%); group households (4%); and all other households (8%). These groups do not fit easily into a life cycle continuum.

Lone parents

Lone parents are a population group of particular interest. This group has higher net benefits (benefits less taxes) than any of the life cycle groups considered above. Households in this group receive very high levels of direct benefits, consisting mainly of family payments. Indirect benefits are also relatively high because of high use of education services. Direct and indirect taxes are both low, since both income and expenditure are low.

Lone persons aged 35-64

This heterogeneous population group has increased in relative size from 7.7% of all households in the 1988-89 study to 10.9% in this study, accounting for half the increase in the population of households outside the life cycle analysis. Within this lone persons grouping, the characteristics of the different age groups are quite different (see Table 19 for details). The older persons (aged 55 to 64) have increased in number by 31% in the past decade, in line with the increase in total household numbers. This subgroup now receives a relatively higher private income, compared with the average household, than it did 10 years ago (up from 29% to 37%) but it also has higher relative taxes and lower relative benefits. However, benefits still outweigh taxes for this subgroup. The youngest lone

person subgroup (aged 35 to 44) in this wider category that is outside the life cycle analysis has more than doubled in size over the past 10 years, growing well above the total household growth rate. This age subgroup pays the highest taxes of all lone person households, and receives the lowest benefits, resulting in a net tax payment of \$172 per week. The subgroup of lone persons aged 45 to 54, which also more than doubled in size, pays net taxes of \$95 per week.

Couple only, reference person aged 35-54

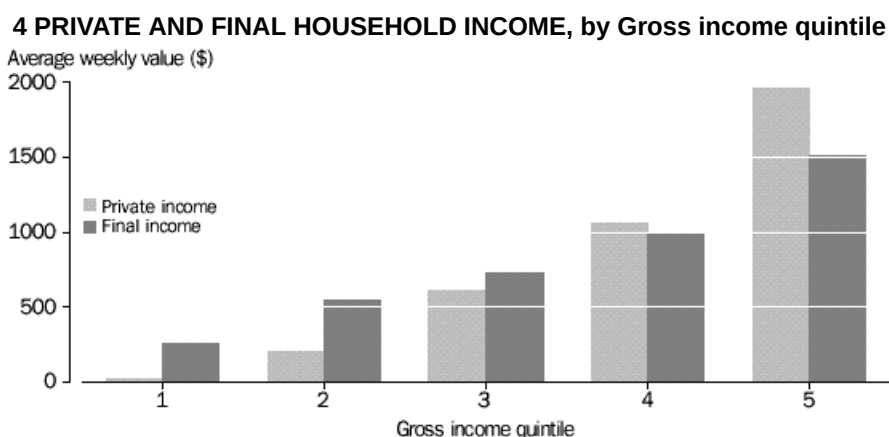
The group comprising couple only households where the reference person is aged 35 to 54 has increased its share of total household numbers from 4.3% in 1988-89 to 5.9% a decade later. The two age subgroups within this group (aged 35 to 44, and 45 to 54) both pay substantial net weekly taxes.

HIGH AND LOW INCOME GROUPS

Low income households receive more government benefits and pay less tax than high income households. This redistribution of income from high to low income households can be seen more clearly in an analysis of income quintile groups.

Quintile groups are formed by ranking all households in terms of gross income and then dividing the households into five groups each containing 20% of all households. The lowest quintile contains the 20% of households with the lowest incomes, the second lowest contains the 20% of households with the next lowest incomes and so on.

The net effect of benefits and taxes, as shown in this study, was to increase the average value of income of households in the three lower quintiles and decrease the average income of households in the two higher quintiles (graph 4). In the lowest quintile, average private income was \$15 per week and average final income was \$261 per week. In the highest quintile, private income was \$1,954 per week and final income was a lesser amount of \$1,514 per week.



A similar pattern applies to the shares of private and final income received by households in different quintiles. The share of all income received by households in the lowest quintile was 0.4% using the private income measure and 6.4% using the final income measure. For households in the highest quintile, the income share decreased from 50.8% for private income to 37.6% for final income.

However, care needs to be taken in interpreting these results. The measures of income do not take into account differences in household size and composition. Specifically, there are more single person and smaller households in the lower income quintiles.

DISTRIBUTION OF HOUSEHOLD INCOME, TAXES AND BENEFITS, by Gross income quintile

	Lowest 20% %	Second quintile %	Third quintile %	Fourth quintile %	Highest 20% %	All households %
Private income	0.4	5.4	15.9	27.5	50.8	100.0
Taxes						
Direct	0.2	2.4	11.9	25.4	60.1	100.0
Indirect	9.5	14.1	18.7	25.0	32.7	100.0
Total	3.1	6.0	14.0	25.3	51.6	100.0
Benefits						
Direct	26.8	39.7	18.6	9.5	5.4	100.0
Indirect	15.1	22.8	20.9	20.7	20.6	100.0
Total	19.3	28.8	20.1	16.7	15.2	100.0
Final income	6.4	13.7	18.0	24.3	37.6	100.0

The effects of different benefits and taxes varied with the level of household income. The payment of direct taxes and, to a lesser extent indirect taxes, increased with income. Households in the lowest quintile paid 0.2% of total direct tax while households in the highest quintile paid 60.1%. For indirect taxes, households in the lowest quintile paid 9.5% while households in the highest quintile paid 32.7%.

Direct benefits increased with household size and decreased as levels of household income rose. The lowest quintile received 26.8% of direct benefits; the second quintile, which contained larger households, received 39.7%; and the third, fourth and fifth quintiles received progressively smaller shares.

In comparison, indirect benefits were spread more evenly across quintiles. The receipt of such benefits tended to vary in relation to other household characteristics such as the numbers and ages of household members.

COMPARISON WITH PREVIOUS STUDIES

Estimates contained in the majority of tables in this publication are not comparable with estimates from previous studies because the methodology differs. A comparative study, however, has been undertaken utilising similar methodology to that used in previous studies. Nevertheless, despite the use of similar methodology, there may be significant inconsistencies between estimates for 1998-99 and the estimates for earlier years. For 1998-99 the aggregate data relating to government indirect benefits were compiled on an accruals basis instead of a cash basis, and it is not possible to fully adjust them back to a cash basis.

Detailed estimates from the comparative study are given in tables 21 and 22. Differences between the study methodologies are discussed in the Explanatory notes.

Using estimates from the comparative study, the following table compares income shares for quintile groups over time. It should be noted that one of the adjustments made to 1998-99 data to make them more comparable with earlier years is to set negative incomes (e.g. business losses) to zero. This adjustment leads to private incomes for 1998-99 in the lowest quintile being significantly higher than those published in the tables relating to the main study.

DISTRIBUTION OF HOUSEHOLD INCOME, TAXES AND BENEFITS, by Gross income quintile (a)

	Lowest 20% %	Second quintile %	Third quintile %	Fourth quintile %	Highest 20% %	All households %
Private income						
1984	1.0	7.5	17.8	27.1	46.6	100.0
1988-89	1.1	7.5	17.4	26.7	47.3	100.0
1993-94	1.1	5.4	15.8	27.4	50.3	100.0
1998-99	1.0	5.5	15.8	27.3	50.3	100.0
Total taxes						
1984	2.5	7.3	15.6	25.6	49.1	100.0
1988-89	2.8	7.3	16.1	25.7	48.1	100.0
1993-94	3.0	6.2	14.1	25.0	51.7	100.0
1998-99	3.1	6.2	14.1	25.3	51.4	100.0
Total benefits						
1984	24.6	26.6	17.8	17.3	18.0	100.0
1988-89	24.0	24.8	16.9	15.6	16.4	100.0
1993-94	21.9	28.1	19.4	16.2	14.4	100.0
1998-99	20.5	28.1	19.4	16.2	15.7	100.0
Final income						
1984	8.0	13.6	18.2	24.1	36.1	100.0
1988-89	8.4	13.6	17.8	23.4	36.8	100.0
1993-94	7.9	13.3	17.6	24.1	37.1	100.0
1998-99	7.4	13.5	17.7	23.9	37.5	100.0

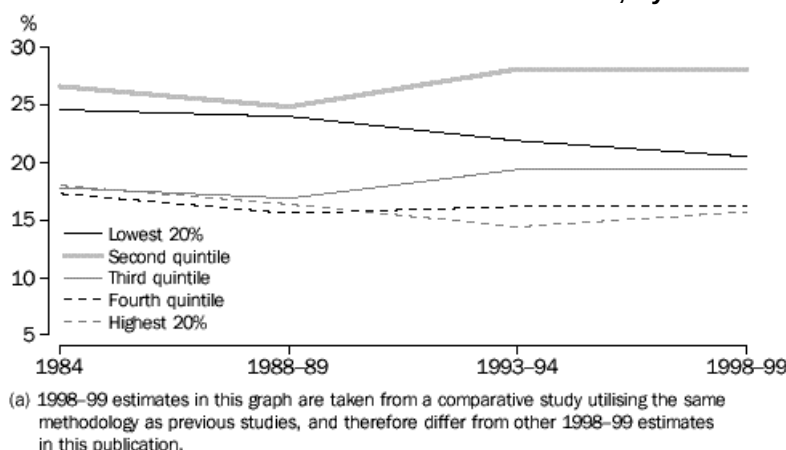
(a) 1998-99 estimates in this table are taken from a comparative study utilising the same methodology as previous studies, and therefore differ from other 1998-99 estimates in this publication.

The spread of private income across the quintiles in 1998-99 was similar to the spread in 1993-94. The differences in quintile shares shown in private income were reduced by government benefits and taxes so that final income is more evenly distributed in all years. However, in 1998-99 final income of households was slightly less equally distributed than in previous years, with the bottom quintile receiving a smaller proportion of benefits and therefore of final income and the highest quintile receiving a slightly larger proportion of both benefits and final income.

As graph 5 shows, the share of government benefits going to the lowest income quintile has fallen in each of the last three studies to be 17% lower in 1998-99 than in 1984. While the highest income quintile had seen its share of benefits decline in both 1988-89 and 1993-94, graph 5 shows the share increasing in 1998-99 to be 13% below the 1984 level.

However, comparisons between income quintiles and over time should be undertaken with care because the effects of differences in, and changes over time to, household size and composition are not taken into account in the measures used in this study. For example, compositional change is a significant factor in the fall in the share of government benefits accruing to households in the lowest income quintile in the past ten years. Whereas aggregate age pension payments in this study are about 70% higher than those recorded in the 1988-89 study, the average age pension per household in the lowest gross income quintile has risen only by about 10%. This outcome is expected to be, in part at least, due to the relatively stronger growth in the representation of single and younger person households in the bottom quintile. On the other hand, in the second quintile the average age pension over the ten years to 1998-99 has risen by over 150%, reflecting a significant increase in the average age of people in this quintile. Similar compositional effects are observed for family payments, with a 50% increase in the proportion of households in the second quintile that are lone parent families. In 1988-89, the proportion of households in the lowest income quintile that were lone parent households (10%) was higher than in any other quintile. By 1998-99, compositional changes had resulted in lone parent households accounting for 13% of all households in the second quintile, while the proportion in the first quintile had slipped to 7%.

5 DISTRIBUTION OF GOVERNMENT BENEFITS TO HOUSEHOLDS, By Gross income quintile (a)



EXPLANATORY NOTES

INTRODUCTION

This publication presents the results of a study of the effects of government benefits and taxes on the distribution of income among private households in Australia in 1998-99. The approach chosen for the study is only one of several ways of undertaking such a study. To enable critical interpretation of the findings, this section briefly describes the concepts, sources and methods used.

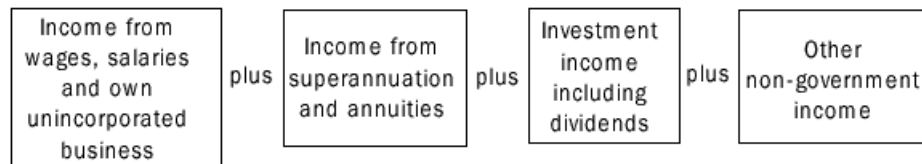
INCOME CONCEPTS

The diagram below shows the set of income concepts used to describe the effects of different types of government benefits and taxes. The starting point is private income which is the total current weekly income of all members of a household and includes wages and salaries, profits and losses from own business and rent, other investment income and income from superannuation and annuities. Government direct benefits, such as pensions and unemployment allowances paid to individuals, are added to private income to give gross income. Personal income taxes (i.e. direct taxes) are deducted from gross income to give disposable income. The value of government indirect benefits for education, health, housing and social security and welfare is added to disposable income to give disposable income plus indirect benefits. Finally, indirect taxes such as sales taxes on selected commodities are deducted from disposable income plus indirect benefits to give final income.

INCOME CONCEPTS AND COMPONENTS

Income concepts

Private income:
from sources
other than
government
benefits

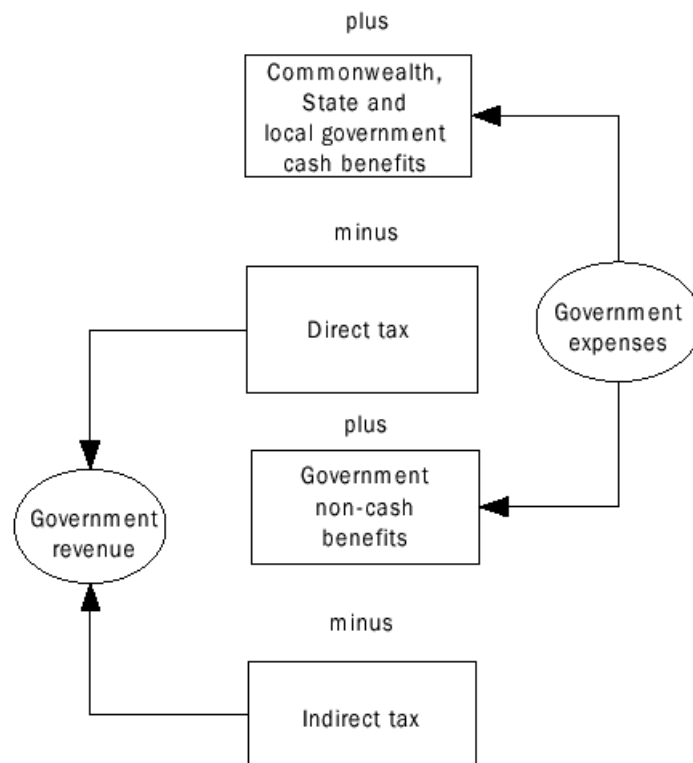


Gross income:
private income plus
government direct
benefits

Disposable income:
gross income
minus direct tax

Disposable income
plus indirect benefits

Final income:
income after
all benefits and
taxes



MAJOR DATA SOURCES

The two major data sources used in this study are the 1998-99 ABS Household Expenditure Survey (HES) and the ABS Government Finance Statistics.

Household Expenditure Survey

The 1998-99 HES collected detailed information about the expenditure, income and household characteristics of a sample of households resident in private dwellings throughout Australia. Interviews for the survey were equally spread over the financial year beginning July 1998 and ending June 1999.

This study uses information reported in the HES as a basis for modelling the effects of various government benefits and taxes on household income. The survey provided details on the composition of households and the characteristics of their members, the level and sources of their income and the patterns of their expenditure. Household income data were used to provide a measure of private income and direct government benefits; income as well as personal and household characteristics were used to calculate direct tax paid; expenditure data were used to calculate indirect taxes paid; and characteristics of household members were used to identify recipients of indirect government benefits.

Aspects of the survey which affect the results of the study are as follows.

Survey scope and coverage

The HES is concerned only with households living in private dwellings. As a result, persons living in 'special dwellings' such as hotels, nursing homes, boarding houses and institutions are excluded.

While no adjustment has been made to the HES population estimates to compensate for limited scope, efforts have been made to ensure that the appropriate share of government expenditures has been allocated to the HES population. This was achieved by calculating average benefits on the basis of benchmark estimates of the total population eligible for particular indirect benefits.

Sampling variability

The HES is a sample survey, the results of which are based on the responses of 6,893 households. The information provided by households is weighted to produce estimates for all Australian households. These estimates are subject to sampling variability and may differ from the figures that would have been produced if information had been collected from all households in Australia. Further information on sampling variability is given in Appendix 2 of the publication.

Underestimation of some income

A comparison of the total HES income with corresponding figures in the Australian System of National Accounts (ASNA) suggests underestimation of income from investment and self-employment. As it is not known whether this can be attributed to conceptual differences, scope differences, understatement by respondents or to non-response, there is no basis for making adjustments to the recorded figures.

Underestimation of some expenditure

The average expenditure on both alcohol and tobacco recorded by households in the sample is well below the level which would be expected from the recorded total of Australian production (adjusted for imports and exports) of these items. Reported expenditure on gambling is also well below the expected level. For reasons similar to those mentioned for income, no adjustment has been made to any of the reported expenditure data.

Non-response bias

The non-response rate for the 1998-99 HES was 23% of the in-scope sample.

In previous surveys, the sample weighting was adjusted to account for non-response. For the 1998-99 HES the demographic and geographic information available for non-respondents was analysed to determine whether a strong relationship existed between household non-response and its demographic and geographic characteristics. No strong relationship was detected so no adjustment to the initial weights to account for non-response was required.

Non-response bias may remain if non-responding households are systematically different from responding households. The full effect of such residual non-response bias cannot be quantified.

Readers requiring a more detailed description of the 1998-99 HES should refer to the 1998-99 issue of **Household Expenditure Survey, Australia: User Guide** (Cat. no. 6527.0).

Government Finance Statistics

As part of the Australian System of National Accounts (ASNA), the ABS regularly produces summaries of government revenues and expenses. These government finance statistics (GFS) provide Commonwealth, State and local government revenues classified by type of tax and expenditures classified by purpose and type of economic transaction. The Government Purpose Classification (GPC) identifies the functional areas to which expenses relate (e.g. health, housing and welfare) while the Economic Transactions Framework (ETF) identifies the type of transaction. For example, direct cash payments to households are distinguished from expenses relating to the payment of administrative staff and from expenses on building construction. It is from the combination of these classifications that direct and indirect expenses in various programs are identified.

GFS for 1998-99 are not consistent with those for previous periods because of the implementation of accrual accounting. Previously GFS had been recorded on a predominantly cash basis. The accruals-based statistics include some transactions such as depreciation provisions and accrued superannuation expenses that were not included as expenses in the cash-based statistics. For more information on the impact of accrual accounting on GFS refer to **Information Paper: Accruals-based Government Finance Statistics** (Cat. no. 5517.0).

Estimates of total government expenses (for Commonwealth, State and local government) used to cost indirect benefits, and to compare the results of the allocation of direct benefits, were specially tabulated by the ABS and reflect 1998-99 data as at the release of 1999-00 GFS. Taxation information, used to assess the results of tax imputation methods, was obtained from the 1999-00 issue of **Taxation Revenue, Australia** (Cat. no. 5506.0).

METHODS

Unit of analysis

The basic unit of analysis in the study is the household. A household is defined as a group of people who usually reside and eat together. This may be:

- a one person household, that is, a person who makes provision for his or her own food or other essentials for

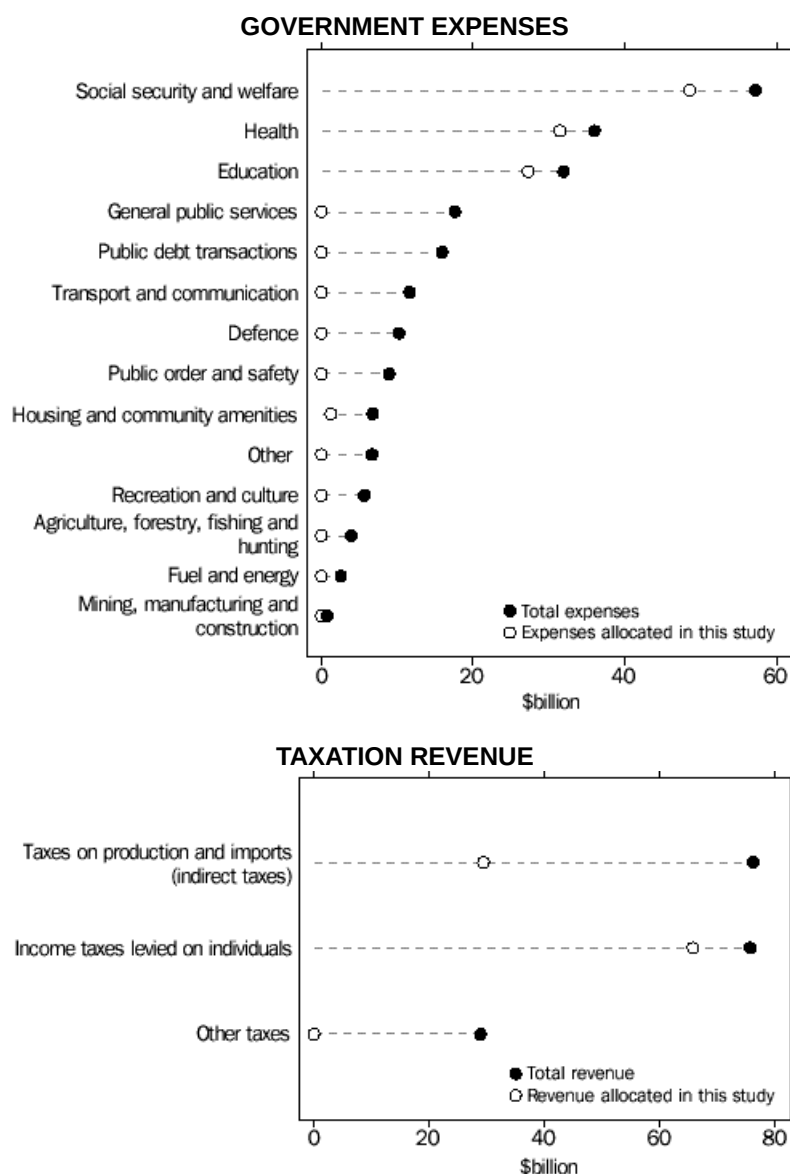
living without combining with any other person; or

- a multi-person household, that is, a group of two or more persons, living within the same dwelling, who make common provision for food or other essentials for living. The persons in the group may pool their income to a greater or lesser extent; they may be related or unrelated persons or a combination of both.

Spending on many items, particularly on food, housing, fuel and electricity is largely joint spending by members of the household. Without further information or assumptions it is difficult to apportion spending, and indirect taxes based upon this spending, between individuals, families or other subdivisions of the household. The household is therefore the unit of analysis used in the study.

Benefits and taxes allocated

The aim of the study has been to allocate only those benefits and taxes relevant to households and no attempt has been made to allocate the whole of government expenditure and revenue. The government expenses and revenues allocated and not allocated in the study are illustrated in graphs below.



In many cases, the decision to allocate or not to allocate was guided by the availability of data. For direct benefit payments, allocation of government expenses relating to direct cash payments was restricted to cash payments covered by the HES income questionnaire. Direct taxes not allocated include taxes not directly relevant to the household sector such as corporate taxes, and taxes relating to some household receipts, such as lump sums, which were not collected in sufficient detail in the HES income questionnaire. Many indirect benefits were not allocated because:

- there was no clear conceptual basis for allocation;
- target groups could not be identified with HES data; or
- expenditure on target groups could not be isolated in GFS data.

Indirect taxes were calculated by applying intermediate and final tax rates derived from the 1996-97 **Australian National Accounts**: Input-Output tables (Cat. no. 5209.0) to household expenditure. Because household expenditure does not account for the full amount of production and consumption recorded in the Input-Output tables, only a proportion of indirect taxes was allocated to households.

DIRECT BENEFITS

Direct benefits were defined as selected payments in cash by Commonwealth, State and local government to Australian residents and cover age, Veterans Affairs, disability support, and wife/carer pensions; Newstart, youth, Austudy/Abstudy, mature age, sickness, widow and family allowances; and parenting payment. Direct benefits were allocated as reported in the HES. Pensions and allowances from overseas governments were excluded from direct benefits and included in private income.

GFS figures for Commonwealth, State and local government show 1998-99 expenses relating to all monetary transfers to Australian residents to be \$49,924 million. However, this figure includes some direct health benefits, which for practical reasons are allocated as health related indirect benefits (see below). Accordingly, the direct benefits recorded in GFS figures that most closely correspond to the estimates provided from the HES are those relating to social security and welfare and education. The expenses on direct benefits in these areas amounted to \$48,221 million. Of this amount, the study allocated \$38,732 million to households. The discrepancy between expenses reported in GFS and the amount allocated is due to:

- scope exclusions in the HES. The HES does not cover the whole population and in particular, excludes residents of special dwellings. Many residents of special dwellings e.g. nursing homes are recipients of direct benefits;
- cash benefits that are not covered by income questions in the HES. These benefits comprise irregular or one-off cash payments such as crisis or disaster payments; and
- under-reporting of government benefits and pensions by HES respondents.

INDIRECT BENEFITS

Indirect benefits consist of goods and services provided free or at subsidised prices by the government. In the study, allocation of indirect benefits was restricted to those arising from the provision of education, health, housing, social security and welfare services.

Except for government expenditure on housing (see details following), benefits were based on the cost to government of the provision of those services. More specifically, the total value of indirect benefits was defined as Commonwealth, State and local government expenses, net of intra-government transfers, minus monetary transfers. In the case of health benefits, however, some direct health benefits which were not collected as monetary transfers in the HES are allocated together with the indirect health benefits.

The methods used to allocate the indirect benefits to households are described in the following paragraphs.

Education

Indirect benefits were allocated for school education, tertiary education and other education benefits. School education includes benefits from pre-school education, primary and secondary education and student transportation. Tertiary education includes benefits from university education, technical and further education, and tertiary education n.e.c. Other education benefits include benefits from special education and education n.e.c.

School education

Government expenses relating to pre-school education were allocated to households containing children aged 3, 4 or 5 years. An average benefit per child attending pre-school in each State was derived by dividing GFS expenses in each State by the number of children attending pre-school in that State as measured by the 1998 Child Care Survey. The number of children attending pre-school in each household was imputed according to pre-school participation rates. Pre-school participation rates were separately derived for 3, 4 or 5 year olds by dividing the number of children attending pre-school (largely as measured by the Child Care Survey) by the estimated population of 3, 4 or 5 year olds in that State. The benefit received by households was the (imputed) number of children attending pre-school multiplied by the average pre-school benefit for their State or Territory of residence. Of \$358 million available for allocation, \$348 million was allocated for pre-school benefits. Estimates of the number of children obtained from the HES led to the underallocation.

Government expenses relating to primary and secondary education and student transportation were allocated to

households containing primary and secondary school students. An average benefit, for both education and transportation, was calculated for six student types: government primary, Catholic primary, other non-government primary, government secondary, Catholic secondary and other non-government secondary. Data on average expenditure for government school children was obtained from the National Report on Schooling in Australia, 1998 produced by the Curriculum Corporation and the Australian Education Council, and average expenditure per student type for all non-government school students was obtained from the Department of Education, Training and Youth Affairs. Numbers of students were obtained from the 1998 and 1999 issues of the ABS publication *Schools, Australia* (Cat. no. 4421.0) and aggregate expenditure was calculated. This was compared with GFS expenses on primary and secondary education and an adjustment factor was calculated and applied to average expenditure by student type. This ensured that average student benefits reflected GFS expenses. Households were allocated benefits according to the reported number of members who attended schools of each type. Of \$17,509 million available, \$18,018 million was allocated. Overallocation of benefits occurred because the number of school students reported in the 1998-99 HES exceeded the estimates of school students provided in *Schools, Australia*.

Tertiary education

Government expenses relating to university education were allocated to higher education students. Average benefits were derived by dividing GFS expenses by benchmark enrolment data from the 1998 and 1999 issues of the ABS publication **Transition from Education to Work, Australia** (Cat. no. 6227.0) and then, from each average benefit, deducting Higher Education Contribution Scheme (HECS) charges for 1998-99. Part-time students were assumed to receive half the benefits of full-time students. Benefits were allocated to households according to the number of members who reported themselves as attending higher education. Of the \$7,780 million available for allocation, \$4,727 million was allocated. Underallocation of benefits occurred because HECS charges were deducted and HES numbers of higher education students, which exclude students living in student residences and in other special dwellings, were less than benchmark estimates of student numbers.

Government expenses relating to technical and further education were allocated to Technical and Further Education (TAFE) students. Average benefits were derived by dividing GFS expenses by the estimated number of TAFE students from the 1998-99 HES. Part-time students were assumed to receive half the benefits of full-time students. Benefits were allocated to households according to the number of members who reported themselves as attending TAFE. Of the \$3,216 million available for allocation, all was allocated.

Government expenses relating to tertiary education n.e.c. were allocated to all persons who reported that they attended a tertiary institution either full or part-time. An average benefit was derived by dividing GFS expenses by benchmark enrolment data for higher education students and estimated number of TAFE students from the HES. The same benefit was allocated to all student types regardless of institution type and full-time or part-time status. Benefits were allocated to households according to the number of members who reported themselves as tertiary students. Of the \$193 million available for allocation, all was allocated.

Other education benefits

Government expenses relating to special and other education were allocated to all pre-school, primary and secondary education students. An average benefit was derived for each State by dividing GFS expenses in each State by the reported number of pre-school, primary and secondary students. An equal average benefit was allocated to each student and household benefits were the sum of household members' benefits. Of \$748 million available, all was allocated.

Health

Health benefits are allocated for hospital care, medical clinics, pharmaceuticals and other health benefits. Hospital care covers expenses relating to acute care institutions; medical clinics cover community health services; pharmaceuticals cover pharmaceuticals, medical aids and appliances; and other health benefits cover public health services, health research and health administration n.e.c.

These benefits were allocated to households according to an insurance premium approach. Instead of allocating benefits according to actual use of health services (which implies that benefits increase with ill health), members of the HES population were allocated benefits according to the average utilisation rates for their age, sex and State or Territory of residence groups.

Hospital care

Government expenses relating to acute care institutions were allocated to all persons according to hospital bed utilisation rates (average number of days in hospital per person) for their age, sex and State or Territory of residence group. Hospital utilisation was used as an indicator of the use of all institutional services and benefits. The utilisation rates were calculated using patient days and population estimates contained in the Australian Institute of Health and Welfare's *Hospital Statistics*, 1997-98.

The benefit allocated to households was the sum of each member's utilisation rate multiplied by the average benefit

per hospital bed day in their State or Territory of residence. The average benefit per hospital bed day was derived by dividing GFS expenses per State by the number of days spent in hospital by the State population. Total hospital usage was the product of the utilisation rates multiplied by estimated resident population, from **Population by Age and Sex, Australian States and Territories** (Cat. no. 3201.0). Of \$15,782 million available for allocation, \$14,928 million was allocated. Underallocation of benefits occurred because the HES excludes residents of special dwellings.

Medical clinics

Government expenses relating to medical clinics and other community health services (collectively referred to as medical clinic expenditure in this study) were allocated to all persons according to the doctor visit rate for their age, sex and State or Territory of residence. Doctor visits were used as an indicator of utilisation of all non institutional benefits and services such as dentists, specialists, maternal and infant centres, chiropractors, pathology services and domiciliary care. Utilisation rates for doctors were obtained from the 1995 National Health Survey.

The benefit allocated to households was the sum of each member's utilisation rate multiplied by the average benefit per doctor visit in their State or Territory of residence. An average benefit per doctors visit was derived by dividing GFS expenses per State by the number of doctor visits made by the State population. Number of doctor visits was the product of the utilisation rates multiplied by the estimated resident population, from **Population by Age and Sex, Australian States and Territories** (Cat. no. 3201.0). Of \$10,628 million available for allocation, \$10,461 million was allocated. Underallocation of benefits occurred because the HES excludes residents of special dwellings.

Pharmaceuticals

Government expenses relating to pharmaceuticals, medical aids and appliances were allocated to all persons according to their eligibility for pharmaceutical concessions as well as usage of prescribed medicines for their age, sex and State or Territory of residence group. In 1998-99, concessional benefits were available to holders of pensioner concession cards, health care cards, Commonwealth seniors health cards and Department of Veterans Affairs Gold or White cards. Expenses relating to pharmaceuticals, medical aids and appliances were divided between those who were eligible for concessions and those who were not, in proportion to the cost to government of concessions provided by the Department of Health and Aged Care. Utilisation rates were obtained from the 1995 National Health Survey.

Household benefits were the sum of each household member's utilisation rate multiplied by the average benefit per prescribed medicine according to their eligibility for concessions. Average benefits per prescribed medicine for those who were eligible for concessions and those who were not, were derived by dividing GFS expenses by total prescribed medicine utilisation for the two groups. For persons receiving concessions, total prescribed medicine utilisation was the product of benchmark numbers of holders of each type of concession card (derived from the 1998-99 Department of Family and Community Services Annual Report) multiplied by the average utilisation rate for those eligible for concessions (derived by applying National Health Survey utilisation rates to persons who reported holding cards in the HES). For others, total prescribed medicine utilisation was the product of the estimated resident population (minus those who are holders of concession cards) multiplied by the average utilisation rates. Benefits were adjusted according to State differences in expenses. Of the \$3,283 million available for allocation, \$3,044 million was allocated. Underallocation of benefits occurred because the HES excludes residents of special dwellings.

Other health benefits

Government expenses relating to public health, health research and health administration n.e.c. were allocated to all persons. An average benefit was derived by dividing GFS expenses per State by the estimated resident population, from **Population by Age and Sex, Australian States and Territories** (Cat. no. 3201.0). Benefits per household were equal to the number of members multiplied by the average benefit. Of the \$3,061 million available for allocation, \$3,007 million was allocated. Underallocation of benefits occurred because the HES excludes residents of special dwellings.

Housing

Government expenses relating to housing largely involves building new houses for rent at subsidised cost. These expenses were not allocated amongst HES households because it is difficult to identify likely future recipients of the benefits.

Instead, benefits were allocated to households in government rental accommodation according to the value of their rent subsidy. The value of their rent subsidy was taken to be the difference between the rent paid by the household and the estimated value of private market rent according to the State, region, type of dwelling and number of bedrooms. Market rents for private unfurnished dwellings were obtained from the 1996 Census and the prices for the rents were adjusted to December 1998 prices according to the percentage change in the Consumer Price Index (CPI). In total, \$1,296 million was allocated.

Social security and welfare

Government expenses relating to social security and welfare programs, other than direct cash payments (see DIRECT BENEFITS described previously) and payments for child care assistance and child care rebate, were allocated to persons who received social security and welfare cash benefits. Average indirect benefits for different types of benefit recipients were calculated by dividing indirect GFS expenses by the number of recipients as reported in the 1998-99 Department of Family and Community Services Annual Report and the 1998-99 Department of Veterans Affairs Annual Report. Different levels of benefit were calculated for persons receiving age, veterans affairs, and disability support pensions and family allowance and parenting payment. Average benefits were allocated to persons receiving similar direct government benefits. Household benefits were the sum of household members' benefits. Of \$10,260 million available for allocation, \$9,102 million was allocated. Underallocation of benefits occurred because of HES population exclusions and under-reporting of government cash benefits by HES respondents.

Expenditure on child care assistance was allocated to households with children under 12, according to household income and the probability that the children were attending eligible child care. The probability of a child attending care was the sum of the ratios of the number of children attending long day care, family day care, occasional care and outside school hours care to total numbers of children in these categories according to age and whether the child attends school as reported in the 1999 Childcare Survey. This probability was then multiplied by the rate of child assistance provided to families according to their income and number of children as given in the July 1998 Childcare Assistance Ready Reckoner produced by Centrelink. Of the \$635 million (a figure obtained from the Department of Family and Community Services) spent on child care assistance, all was allocated.

Government expenditure on child care rebates was similarly allocated to households with children aged under 12. The probability that children were attending child care (calculated for the child care assistance benefit) was multiplied by the rate of child care rebate provided to families according to their income. Of the \$116 million spent on the child care rebate (a figure obtained from the Health Insurance Commission statistical tables), all was allocated.

DIRECT TAX

Direct taxes were imputed according to the following steps:

- for each individual, non taxable components were deducted from reported gross income to give taxable income;
- an approximate adjustment was made for deductions such as union dues;
- tax payable was imputed from taxable income using the 1998-99 marginal tax rates;
- rebates were calculated according to household characteristics and tax eligibility criteria for: dependent spouses, sole parents, dependent parents, residential zones, pensioners, beneficiaries, and franked dividend imputation credit;
- total rebates were subtracted from gross tax to give final tax;
- the medicare levy and supplement, calculated using 1998-99 tax rules, was added to final tax; and
- individual final tax plus the medicare levy and supplement was aggregated for households.

In total, the HES population was calculated to have paid \$65,716 million in direct tax. Government finance figures for 1998-99, however, show revenue from income tax levied on individuals to be \$75,657 million. The main reasons for the underestimation of direct tax in this study are:

- the calculation of tax liability on regular cash income only. Taxes such as capital gains tax were not calculated because the HES did not collect the relevant information;
- scope exclusions in the HES; and
- understatement of income in the 1998-99 HES.

INDIRECT TAX

Indirect taxes include taxes paid on production inputs (intermediate taxes) and taxes paid by households on final products (final taxes).

In allocating indirect taxes, it was assumed that the incidence of these taxes was fully shifted to the final consumer. With the exception of taxes on ownership of dwellings and banking services, the amount of indirect tax paid by HES households was calculated as follows:

- using the 1996-97 ABS Input-Output tables, a final tax rate and an intermediate tax rate was calculated for each of the 106 Input-Output commodity classifications;

- the 609 HES commodity codes were mapped to the 106 Input-Output commodity classifications; and
- household expenditure on the 609 HES commodity codes was multiplied by the relevant tax rates and the final and intermediate taxes summed to obtain the amount of indirect tax paid by the household.

In 1993-94 the method outlined above was also used to calculate indirect taxes on ownership of dwellings and banking services. In the case of ownership of dwellings, since imputed rent paid by owner occupiers is not included in expenditure in the HES, this resulted in an understatement of these taxes by about \$2.5 billion. To overcome this problem, in 1998-99 indirect taxes on ownership of dwellings were calculated differently. For owner occupiers, indirect taxes on ownership of dwellings were taken to be equal to the expenditure on general rates and land taxes reported in the HES. For renters (other than those renting from a State or Territory housing authority), an estimate of total general rates and land taxes applicable to private rental properties was allocated across reported rent payments.

Similarly, indirect taxes on banking services were not allocated in the 1998-99 study based on a tax rate applied to an observable expenditure category in the HES because a substantial proportion of the activity on which the taxes are levied -- debits and credits to accounts -- is not measured in the HES. Instead, total banking taxes have been allocated across a range of proxy HES expenditure components such as interest, etc. In the 1993-94 study when a tax rate was applied to HES expenditure categories, the result understated these taxes by about \$0.5 billion.

National accounts figures for 1998-99 show revenue from indirect taxes (taxes on production and imports) to be \$76,177 million. Indirect taxes on Household Final Consumption Expenditure (a national accounts concept measuring net expenditure on goods and services by households and non-profit institutions serving households) account for approximately 48% of total indirect taxes. We can therefore expect at best that 48% of this revenue from indirect taxes would be allocated by the study. The study allocated \$29,411 million or 39% of total indirect taxes. Less than 48% of indirect taxes were allocated because:

- the HES excludes some of the population;
- household expenditures were, to a degree, understated, particularly for highly taxed items such as tobacco and alcohol; and
- the tax rates derived from the Input-Output information refer to the 1996-97 financial year. In some cases, the indirect tax rates used in the study will be higher than those in existence in 1998-99 and in other cases, they will be lower.

METHODS FOR COMPARISONS OVER TIME

Being the first of its kind, the study based on the 1984 Household Expenditure Survey relied on less detailed HES information and was less refined than later studies. To enable comparisons over time, it is necessary to use the 1984 methodology so that differences between studies may reflect real changes in the effects of government benefits and taxes and not methodological changes. However, despite the use of similar methodology, there may be significant inconsistencies between estimates for 1998-99 and the estimates for earlier years. For 1998-99 the aggregate data relating to government indirect benefits were compiled on an accruals basis instead of a cash basis, and it is not possible to fully adjust them back to a cash basis.

Differences between the main study presented in the majority of this publication's tables and the study performed for comparisons over time are summarised below.

- In the comparison study, negative income from own business and property was treated as zero income when calculating household income. For example, if a household reported a loss of \$100 per week from own business and \$50 income per week from other private sources, private income was calculated to be \$50 per week. In the main study, negative income was treated as negative. Returning to the example, private income in the main study was calculated to be minus \$50 per week. Thus, average income and income shares of the lowest quintiles are greater in the comparison study than in the main study. For both studies, however, negative incomes from own business and property were not automatically converted to zero in the calculation of direct tax. First, incomes from all sources were added together and then, if income from all sources was negative, it was treated as zero income. In the example, addition of all sources of income gives a total of minus \$50. In the calculation of direct tax, this total income would have been treated as if it was zero income. All studies, in all years, have adopted this methodology for direct tax.
- Children's income was not included in household income in the 1984 HES but was included in the 1988-89, 1993-94 and 1998-99 surveys. Children's income is therefore excluded from household income in the comparison study but included in the main study.
- In the 1998-99 comparison study, GFS expenses were adjusted to an approximate cash basis prior to calculating indirect benefits. Transactions only relevant in the accrual accounting framework (such as depreciation provisions and accrued superannuation expenses) were deducted and transactions only relevant to a cash-based series (such as expenditure on fixed assets) were added.

- In the comparison study expenses allocated on education, health and social security and welfare include personal benefit payments paid in cash to non-residents. Non-residents are not covered by the HES so these payments were deducted from outlay in the main study but were included in the comparison study for the sake of consistency.
- Higher education contribution scheme (HECS) charges were not deducted from student benefits for higher education in the comparison study. These were not deducted in the 1988-89 study even though HECS began in early 1989. Therefore, to be consistent with the 1988-89 study, the 1993-94 and 1998-99 comparison studies did not deduct these charges.
- Other education benefits were allocated to tertiary students as well as pre-school, primary and secondary students. In the main study, these were not allocated to tertiary students because tertiary students were expected to receive only a very small proportion of the benefits compared to other students.
- In the comparison study expenses allocated for hospitals includes expenditure on nursing homes. Residents of special dwellings such as nursing homes are not covered by the HES so these payments were deducted from GFS expenses in the main study.
- Average benefits for hospitals, clinics and pharmaceuticals have not been benchmarked or adjusted for State differences in the comparison study. In the main study, average benefits were derived by dividing the State outlays by the product of the respective utilisation rates and independent State population estimates. In this way, only the expenditure proportional to the population covered by the HES was allocated and State relativities were maintained. In the comparison study, all government outlays were allocated and State differences were not taken into account.
- Housing indirect benefits are calculated differently in the comparison study. In the main study they are equal to government subsidies for rental accommodation (i.e. the difference between the rent paid by households living in government rental accommodation and the amount they would pay for a similar dwelling rented from a private landlord). In the comparison study, the outlay is equal to government capital expenditure on housing minus rents received which is allocated according to the size of each household's rental subsidy. In 1993-94, rents received by the government as measured by the HES were higher than the outlay so benefits were negative. Negative benefits are not meaningful in the study context so these were converted to zero.
- In the comparison study, unlike the main study, welfare and social security indirect benefits were not benchmarked and child care assistance and child care rebate were not allocated separately. Child care assistance and child care rebate were allocated equally to all households with dependent children.
- To calculate indirect tax, the comparison study has in the past used a simpler form of mapping to match expenditure and tax rates than that used in the main study. The use of the simpler form of mapping has produced very little difference in estimates of indirect taxes on alcohol, tobacco, fuel and ownership of dwellings. For other indirect taxes, it has resulted in higher estimates. In 1993-94, the estimate of other indirect taxes in the comparison study was 6.6% higher than in the main study. Changes to the Input-Output classification and to the expenditure classification used in the HES in 1998-99 meant that the simple mapping procedure could not be easily or accurately replicated. In the 1998-99 comparison study, indirect taxes on alcohol, tobacco, fuel and ownership of dwellings were assumed to be the same as in the main study, and other indirect taxes were calculated as being 6.6% higher than the estimates in the main study.

FURTHER INFORMATION

For more information on the study methodology contact the Assistant Director, Household Expenditure, on Canberra 02 6252 6174.

GLOSSARY

Age

Person's age at last birthday.

Age pension

Includes the age pension and in certain circumstances wife pension, as well as additional cash allowances such as rent assistance. Wife pension is added to the age pension if the household receives more income from the age pension than from the disability support pension or the household receives no income from either the age or disability support pension. Age pension is a component of direct benefits.

Alcohol tax

Indirect taxes on alcohol are identified separately in some tables; these taxes cover excises on beer and drinkable spirits and liquor franchise taxes.

Average weekly income

Value obtained by dividing the estimated weekly income of a group of households by the estimated number of households in the group.

Couple

Two people in a registered or de facto marriage, who usually live in the same household.

Couple only household

A household consisting of a couple only, with no other persons present.

Couple with dependent children only household

A household consisting of a couple with dependent children and no other persons present.

Dependent children

All people aged under 15 years; and people aged 15-24 years who are full-time students, have a parent in the household and do not have a partner or child of their own in the household.

Direct benefits

Regular cash payments received directly from government without any requirement to provide goods and services in return. Household direct benefits are the sum of all household members' cash payments. The components of direct benefits which are separately identified in the study are: age pension; disability support pension; Veterans Affairs pensions; unemployment allowances; family payments; and other direct benefits.

Direct tax

Household direct tax is the sum of personal income tax plus the medicare levy and medicare levy surcharge for all members of the household. In this study, direct tax was imputed according to the 1998-99 tax rules which were applied to the gross income of family members according to their characteristics as reported in the 1998-99 Household Expenditure Survey.

Disability support pension

Includes the disability support pension and in certain circumstances wife pension, as well as additional cash allowances such as rent assistance. Wife pension is added to the disability support pension if the household receives more income from the disability support pension than from the age pension. Disability support pension is a component of direct benefits.

Disposable income

Gross income (private income plus direct benefits) minus direct tax.

Earned income

The sum of employee income and own unincorporated business income. In this study earned income refers to income earned on the provision of labour. Income earned on financial and other assets is included in other private income.

Education benefits

Indirect benefits derived from government expenses relating to the provision of school, tertiary and other education.

Employed person

A person aged 15 years and over who, during the week prior to the interview:

- worked one hour or more for pay, profit, commission or payment in kind in a job or business, or on a farm (includes employees, employers and own account workers); or
- worked one hour or more, without pay, in a family business or on a family farm; or

- had a job, business or farm but was not at work because of holidays, sickness or other reason.

Employee income

The sum (prior to deductions for income tax, etc) of:

- usual weekly pay, including the amounts usually received from:
 - wages and salaries,
 - tips and commissions,
 - piecework payments,
 - penalty payments and shift allowances,
 - remuneration for time not worked e.g. sick pay, and
 - workers' compensation paid through the payroll;
 - average weekly receipts from regular bonuses; and
 - average weekly value of selected in-kind income from employers.
- Employee income is a component of private income.

Family

Two or more people, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering, and who usually live in the same household. A separate family is formed for each married couple, or for each set of parent-child relationships where only one parent is present.

Family payments

The sum of family allowance and parenting payment. Family payments is a component of direct benefits.

Final income

Disposable income plus indirect benefits minus indirect tax.

Government pensions and allowances

See Direct benefits.

Gross income

Private income plus direct benefits.

Gross income quintile

Groupings that result from ranking all households in the population in ascending order according to each household's gross income and then dividing the households into five groups each containing 20% of all households.

Health benefits

Health benefits are indirect benefits derived from government expenses relating to hospital care, medical clinics, pharmaceuticals and other health benefits.

Hospital care benefits

Includes indirect benefits derived from government expenses relating to all activities of acute care hospitals, free-standing hospices, alcohol and drug treatment centres, and same-day establishments except activities involving health research and formal health education. Hospital care is a component of health benefits.

Household

A group of related or unrelated people who usually live in the same dwelling and make common provision for living essentials; or a lone person who makes provision for his or her own living essentials without combining with any other person.

Household composition

Classifies households as single income unit households or multiple income unit households. Single income unit households are further disaggregated according to the type of income unit (such as couple only or one parent with dependent children only).

Housing benefits

Indirect benefits from the provision of government housing at subsidised rental rates.

Income

Regular and recurring receipts. Excludes lump-sum receipts, windfall gains and withdrawals from savings. Own unincorporated business income and other private income can be negative. Income data used in this study is as collected in the 1998–99 Household Expenditure Survey. Most information about income is obtained on a current basis, though some relates to the previous financial year.

Income unit

A person or group of related persons living within a household, whose command over income is assumed to be shared. Income sharing is considered to take place within married (registered or de facto) couples, and between parents and dependent children.

Indirect benefits

Non-cash benefits and services provided by the government to households for education, health, housing and social security and welfare. The cost of administering the provision of direct benefits is included.

Indirect taxes

Indirect taxes are taxes in respect of the production, sale, purchase or use of goods and services. In this study, the calculation of the amount of indirect tax paid by each household is based on the value of household expenditure on specific commodities and services incurring indirect tax. The calculation takes into account both the intermediate use and final demand value of the items i.e. both the taxes placed on goods and services used in the production of a particular commodity and the final taxes on goods and services which enter into household final consumption expenditure. The estimates of indirect taxes are based on 1998-99 Household Expenditure Survey data, and therefore exclude indirect tax paid by persons living in special dwellings. No adjustment has been made to the 1998-99 Household Expenditure Survey data for understatement of items of expenditure such as alcohol, gambling and tobacco.

Lone person household

A household consisting of a person living alone.

Medical clinic benefits

Includes indirect benefits derived from government expenses relating to community health services such as domiciliary nursing services, well baby clinics, dental health services, health services provided to particular community groups, family planning services, alcohol and drug rehabilitation programs not involving admission, and other health services provided in a community setting. Also includes expenditure on patient transport. Medical clinics is a component of health benefits.

Negative income

Occurs if the operating costs of an unincorporated business or rental property exceed the owner's gross receipts in the financial year.

Net benefits

Total benefits minus total taxes.

Non-dependent children

All people aged 15 years and over who:

- do not have a spouse or offspring of their own in the household;
- have a parent in the household; and
- are not full-time students aged 15–24 years.

One parent with dependent children only household

Households consisting solely of a single parent and one or more dependent children.

Other direct benefits

Cash benefits regularly received by persons from the Commonwealth, State or local governments, other than age pension, disability support pension, Veterans Affairs pensions, unemployment allowances, and family payments. It includes youth allowance, Austudy payments, sickness allowance, widow allowance and other miscellaneous benefits. Other direct benefits is a component of direct benefits.

Other education benefits

Indirect benefits derived from government expenses relating to special education (e.g. education for children who have physical disabilities) and other education benefits which could not be assigned to school or tertiary education. Other education benefits is a component of education benefits.

Other health benefits

Includes indirect benefits derived from government expenses relating to public health services such as health promotion campaigns, occupational health and safety programs, food standards regulation, immunisation programs, breast cancer screening and screening for childhood diseases, as well as expenditure on health research. Other health benefits is a component of health benefits.

Other indirect taxes

All taxes on goods and services allocated to households, other than those separately identified in respect of petrol and petroleum products, tobacco, alcohol and ownership of dwellings.

Other private income

Private income other than employee income and income from own business. It includes superannuation, workers' compensation, child support and any other allowances regularly received as well as interest and property rent.

Own unincorporated business income

The profit or loss that accrues to people as owners of, or partners in, unincorporated enterprises. Profit/loss consists of the value of the gross output of the enterprise after the deduction of operating expenses (including depreciation). Losses occur when operating expenses are greater than gross receipts and are treated as negative income.

Ownership of dwellings tax

Indirect taxes which can be attributed to the ownership of dwellings are identified separately in some tables. The amounts given represent tax paid in the form of rates, and taxes paid on house and contents insurance, repairs and maintenance, and other current housing costs.

Petrol and petroleum products tax

Indirect taxes on petrol and petroleum products are identified separately in some tables. These cover excises on crude oil and petroleum products and petroleum product franchise taxes.

Pharmaceutical benefits

Includes indirect benefits derived from government expenses relating to pharmaceuticals provided outside of hospitals, aids and appliances used for health purposes and supplied in an ambulatory setting, glasses, hearing aids, wheel chairs, etc. Pharmaceuticals is a component of health benefits.

Principal source of income

The source from which the household receives the most income. For example, if a household receives \$1,000 employee income, \$900 own business income and \$450 property income, the principal source of income would be employee income. If the total income of the household is zero or negative, the principal source is undefined.

Private dwellings

Houses, flats, home units, caravans, garages, tents and other structures that are used as places of residence. These are distinct from special dwellings which include hotels, boarding houses and institutions.

Private income

All regular cash payments received excluding direct benefits. The private income of a household represents the total private income of all members of the household. Private income may be in the form of employee income;

income from own business; interest on financial institution accounts, investments and property rent; superannuation and annuities; child support; workers' compensation; accident compensation; private and government scholarships or any other regular income. The value of private income is obtained from responses to the income questions of the 1998-99 Household Expenditure Survey. Some respondents recorded negative incomes from business and/or property rent; these components of private income were retained as recorded.

Reference person

The reference person for each household is chosen by applying the selection criteria below to all usual residents aged 15 years and over from the top down until a single appropriate reference person is identified:

- one of the partners in a registered or de facto marriage;
- a lone parent;
- the person with the highest income; and
- the eldest person.

For example, in a couple, one family household the partner with the highest income is generally the reference person. However if both partners have the same income, the reference person is the eldest. In households containing more than one family, the reference person is selected from the primary family. The primary family is the family which contains dependent children. If there is more than one family with dependent children, or there are no dependent children present in the household, then the primary family is the first family identified during the interview.

Relative standard error (RSE)

The standard error expressed as a percentage of the estimate for which it was calculated. It is a measure which is independent of both the size of the sample, and the unit of measurement and as a result, can be used to compare the reliability of different estimates. The smaller an estimate's RSE, the more likely it is that the estimate is a good proxy for that which would have been obtained if the whole population had been surveyed.

School education benefits

Indirect benefits derived from government expenses relating to administration, inspection, support and operation of educational programs for preschool, primary and secondary school students. Government expenditure on the administration, inspection, support and operation of transportation services to students were included. Government expenditure on school medical and dental programs (which are included in other health benefits) and monetary transfers to households were excluded. School education is a component of education benefits.

Social security and welfare benefits

Includes indirect benefits derived from government expenses relating to the provision of goods and services to specific population groups with special needs. It includes expenditure on child care services (including subsidies for child care assistance and child care cash rebate), services for the aged, services for people with a disability, etc. The category excludes expenditure on monetary transfers to Australian residents (see direct benefits).

Standard error

A measure of the likely difference between estimates obtained in a sample survey and estimates which would have been obtained if the whole population had been surveyed. The magnitude of the standard error associated with any survey is a function of sample design, sample size and population variability.

Tenure

The nature of a household's right to occupy the dwelling in which they usually live. Tenure is determined according to whether someone in the household:

- owns the dwelling outright;
- owns the dwelling but has a mortgage or loan secured against it;
- is paying rent to live in the dwelling; or
- has some other arrangement to occupy the dwelling (such as under a life tenure scheme, a rent/buy scheme or rent-free).

Tertiary education benefits

Indirect benefits derived from government expenses relating to the administration, inspection, operation and support of education programs at higher education institutions and colleges of technical and further education. Tertiary education is a component of education benefits.

Tobacco tax

Indirect taxes on tobacco are identified separately in some tables. The taxes cover excises on tobacco products and tobacco franchise taxes.

Total benefits

The total of direct benefits and indirect benefits allocated.

Total taxes

The total of direct tax and indirect taxes allocated.

Unemployment allowances

Includes Newstart allowance and mature age allowance and additional cash allowances such as rent assistance. Unemployment allowances is a component of direct benefits.

Veterans Affairs pensions

Pensions paid by the Department of Veterans Affairs. Includes service, disability and war widow pension as well as additional allowances such as rent assistance. Veterans Affairs pensions are a component of direct benefits.

INQUIRIES

For further information about these and related statistics, contact the **National Information and Referral Service** on 1300 135 070 or **Jan Gatenby** on Canberra 02 6252 6174.

About this Release

ABOUT THIS RELEASE

Previously: Household Expenditure Survey, Australia: The Effects of Government Benefits and Taxes on Household Income (ISBN: 0 642 20710 0)

Describes and provides results from the study of the effects of government benefits and taxes on household income in 1998-99 as revealed by the Household Expenditure Survey. Extensive data are published on household direct cash benefits (e.g. age pension), personal tax liabilities, indirect benefits from government outlays on health, education, housing, social security and welfare, and indirect taxes paid on goods and services.